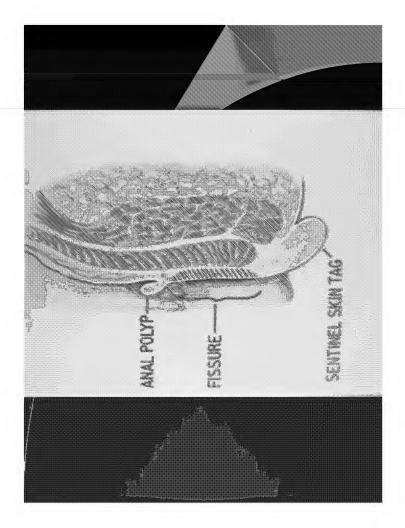
WHAT'S NEW AND WHAT'S OLD **ANAL FISSURES**

GREGORY C. OLIVER, M.D., F.A.C.S.

ACS SPRING MEETING, 2002

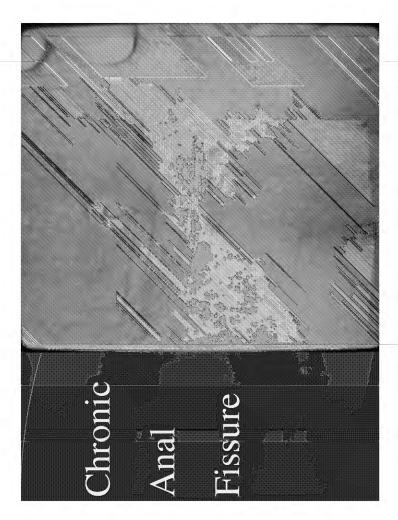


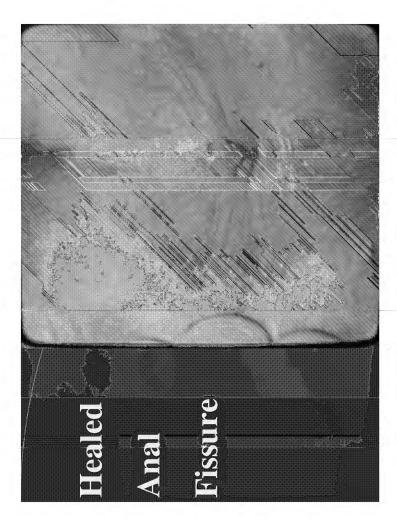
Etiology of Anal Fissure

- IAS Irritation rauma IAS Tone +

Ischemic Ulcer | Blood Flow

Anal

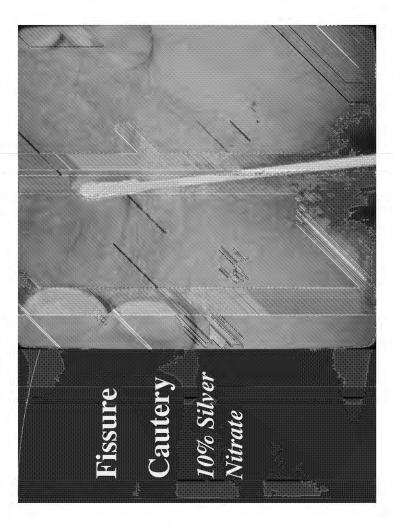




Chronic Changes Healed Fissure Anal

Medical Management Acute Fissures

- CONSERVATIVE TREATMENT • TRADITIONAL
- WARM SOAKS
- EMOLLIENT SUPPOSITORIES
- WOUND CAUTERIZATION
- BULKING AGENTS



Medical Management Acute Fissures

- NITROGLYCERIN 0.2%
- APPLICATION q 4-6 h
- SIDE EFFECTS LIMIT COMPLIANCE
- NIFEDIPINE OINTMENT 0.2%
 - q 12 h REGIMEN
- SIDE EFFECTS MINIMAL

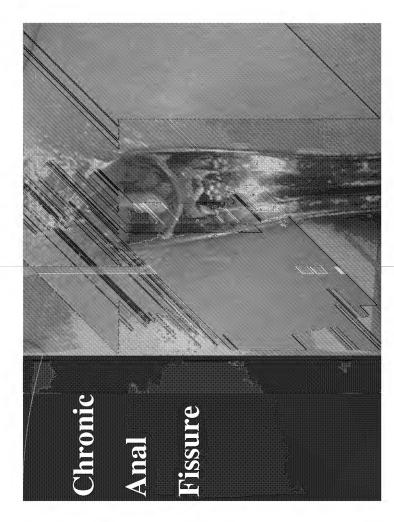
CHRONIC FISSURES Surgical Options

- PLIS
- OPEN
- CLOSED
- * ADVANCEMENT FLAPS
- MUCOSAL
- CUTANEOUS
- PEDICLE FLAPS
- SPHINCTER STRETCH

Medical Sphincterotomy: Botox CHRONIC FISSURES

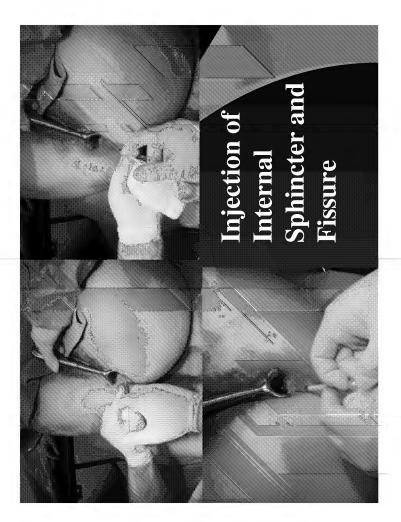
- PATIENT SELECTION
- IBS ?
- SPHINCTER DEFECTS?
- FREQUENT OR LOOSE BM'S?
- GLOBAL SPHINCTER
 LAXITY?



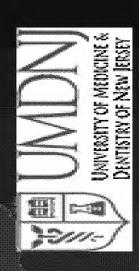


Medical Sphincterotomy: Botox **CHRONIC FISSURES**

- PROCEDURE
- CONSCIOUS SEDATION
- ANAL BLOCK
- DEBRIDE WOUND
- CONVERT CHRONIC STATE INTO ACUTE STATE
- INJECT BOTOX 30 UNITS



Treatment of Anal Fissure: Review of 902 Patients 1993-2002



Purpose

To assess the efficacy of medical management for the treatment of acute anal fissures.

Methods

1387 consecutive patients Retrospective review of from 1/93 to 1/02.

Definition

- Acute fissure
- Pain and bleeding less than 4 weeks
- Superficial tear without signs of fibrosis

Definition

- Chronic fissure
- Pain not as severe
- Present for more than 4 weeks
- Sentinel pile, hypertrophied anal papilla and fibrosis

Exclusion Criteria

- Chronic or healed fissure at presentation
- Fissures related to other anorectal (hemorrhoidectomy, fistulotomy pathology (primary pruritus ani, condylomata etc..) or surgery
- Fissures related to IBD or malignancy

Treatment Groups

- Silver nitrate (10%) cauterization, suppositories, sitz baths and bulking agents (CS)
 - Nitroglycerin ointment (0.2%) (NTG)
- Nifedipine ointment (0.2%) (NIF)
- Botulinum toxin (30 u) (Botox)

Treatment Outcomes 6 Weeks

- Success: healing without recurrence
- Recurrence: healing with treatment and then development of a new fissure
- No response: no improvement at 6 weeks or a required change in treatment modality.

902 patients with acute fissures Results

- 411 men(46%)
- average age 47
- 60 anterior (15%)
- 341 posterior (83%)
- 10 both anterior and posterior (2%)

- 491 women(54%)
- average age 44175 anterior
- 289 posterior (59%)

(36%)

 27 both anterior and posterior (5%)

NF 17 FIRST TREATMENT MEN 411 NTG 6 **CS** 388

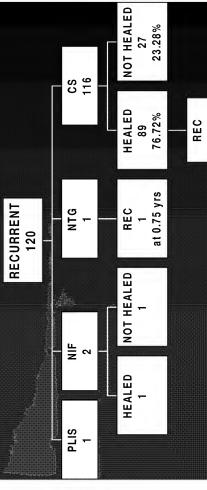
NOT HEALED 6 35% HEALED REC **65**% NOT HEALED 3 50% HEALED REC 20% NOT HEALED 100 26% HEALED REC 119 41.3% 288 74%

ave 0.75 yrs

ave 3.77 yrs

33.33%

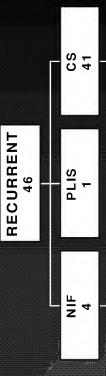
FIRST RECURRENCE



ave 2.5 yrs

20.56%

SECOND RECURRENCE



HEALED	NOT HEALED
က	-
75%	25%

NOT HEALED

HEALED

39.03%

%26.09

at 0.84 yrs 33.33% REC 1

REC 10 40%

ave 2.78 yrs

THIRD RECURRENCE MEN

RECURRENT

CS 7

PLIS 3

HEALED

57.14%

42.86%

NOT HEALED

REC 1

25%

불 FIRST TREATMENT WOMEN 491 NTG WOMEN 459 HEALED

NOT HEALED 9.5% RECURRENT HEALED 90.5% NOT HEALED 27.3% RECURRENT HEALED 72.7% NOT HEALED 23.3% 107 RECURRENT %2'92

352

ave 0.42 yrs

ave 0.88 yrs

ave 3.02 yrs

39.2% 38

20%

21%

FIRST RECURRENCE WOMEN

RECURRENT 146 PLIS 6 NOT HEALED N D D HEALED HEALED 불 NOT HEALED 128 HEALED 6

26.69%

70.31%

20%

20%

REC

REC

ave 1.38 yrs 3 100%

> ave 0.23 yrs %29.99

> > ave 3.30 yrs

20%

REC

SECOND RECURRENCE WOMEN



NTG

ပ္ပ

PLIS

불

NOT HEALED

HEALED

HEALED

NOT HEALED

HEALED

20%

20%

%29.91

83.33%

33.33% REC 1

> ave 3.47 yrs 48.57% **REC 17**

at 3.13 yrs REC 1 20%

at 0.38 yrs

THIRD RECURRENCE WOMEN



HEALED

NOT HEALED

HEALED

45.45%

54.55%

First Course of Treatment Response by Site

• Men

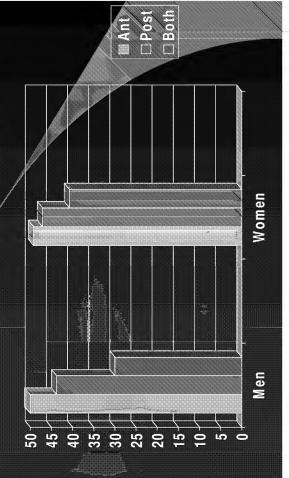
- anterior fissures responded in 50%
- posterior fissures in 44%
- both ant/post in 30%

• Women

- anterior fissures responded in 49%
- posterior fissures in 47%
- both ant/post in

41%

RESPONSE BY SITE



First Course of Treatment **Overall Success**

45% (383/847)

- -NITG

68% (26/38)

35% (6/17)

Second Course of Treatment Overall Success

- SS.
 - PTG FIN-
- Botox

83% (2/6)

39% (89/229) 65% (13/20) 33% (8/24)

Third Course of Treatment Overall Success

- (S)
- PNITE

33% (2/6)

67% (8/12)

-Bolox

- 40% (34/84)

67% (2/3)

Overall Results

- 850
 - NETE
- Botox
- SIIdo

- 44% (526/1203)
- 32% (16/51) 68% (53/78) 87% (13/15)
- 88%

CHI SQUARE ANALYSIS

- SS
- Equivalent to NTG
- Likely inferior to BOTOX

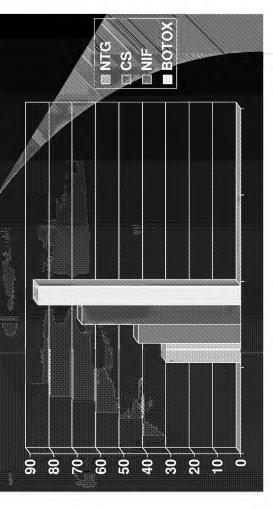
Inferior to NIF

- NIF superior to NTG
- BOTOX superior to NTG
- NIF equivalent to BOTOX

p = 0.02

p = 0.56p = 0.07p = 0.02p = 0.03

RESULTS OVERAL



SPHINCTEROTOMY

Overall: 280/902

- 31%
- No response: 192/228

% 7 \$2

Recurrences: 88/394

22%

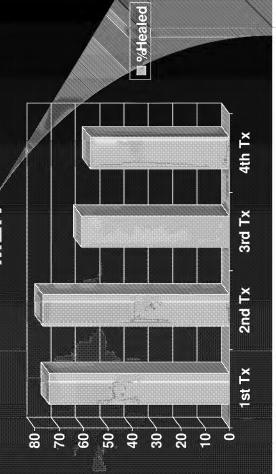
CONCLUSIONS

- Anterior fissures are more common in both men and women than traditionally reported
- better to medical management than Anterior fissures seem to respond do posterior fissures
- posterior fissures at presentation are less likely to respond to medical Patients with both anterior and management.

CONCLUSIONS

- results when compared to other NTG consistently gave inferior medical treatments
- results but long-term follow-up is NIF and Botox gave promising needed
- increased, the efficacy of medical As the number of recurrences treatment declined

Efficacy of Medical Treatment



Efficacy of Medical Treatment Women

